

## REMARKS

Claims 21-31 and 36-37 are pending in the present application. By this Amendment, Claims 37 are amended; and Claims 32-35 are canceled. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendments and following remarks.

### **I. Formal Matters:**

#### **Claim Objections**

Claims 22 and 37 were objected to for various informalities. Claim 22 was objected to for having excess spacing. Claim 22, as now amended, does not have this additional spacing. Claim 37 was objected to for a misspelling. Claim 37 has been amended to correct this misspelling. Accordingly, Applicants respectfully request withdrawal of this objection.

#### **Rejections under 35 U.S.C. § 112, second paragraph**

Claims 22-24 were rejected under 35 U.S.C. § 112, second paragraph for allegedly being indefinite for use of the term “sufficient” in Claim 22. Applicants have amended this claim to remove this term. Accordingly, it is respectfully submitted that these claims are definite and Applicants respectfully request withdrawal of this rejection.

#### **Allowable Subject Matter**

Applicants wish to thank Examiner Pratt for acknowledging the allowability of Claims 29 and 31. Applicants have amended Claims 29 and 31 in independent form including all of the claim features of the base claim and any intervening claim. Accordingly, it is respectfully submitted that Claims 29 and 31 are now in condition for allowance and respectfully request notice to that effect.

### **II. Prior Art Rejections:**

Claims 21-22, 24-28, 30 and 37 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 5,217,798 issued to Brady et al. (hereafter “Brady”). This rejection is respectfully traversed.

Claim 21 is directed to, *inter alia*, a non-woven material comprising a modified poly(ethylene oxide), wherein the modified poly(ethylene oxide) is modified by

grafting a polar vinyl monomer to a poly(ethylene oxide) having an initial molecular weight within the range of about 50,000 g/mol to about 350,000 g/mol before grafting of the polar vinyl monomer. Claim 25 is directed to, *inter alia*, a non-woven comprising a graft copolymer of a poly(ethylene oxide) having an initial molecular weight within the range of about 50,000 g/mol to about 250,000 g/mol and a polar vinyl monomer.

Brady is directed to a hot-melt adhesive material comprising a tackifying resin and a graft copolymer comprising 40-85% of a vinyl monomer and 15-60% of a water soluble polyalkylene oxide polymer. The adhesive may be used as a binder in non-woven materials.

It is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention. Brady is directed to an adhesive comprising, at least, a vinyl monomer and a water soluble polyalkylene oxide polymer. Applicants' claimed invention, however, is not an adhesive. Applicants' claimed invention is a non-woven material comprising a modified poly(ethylene oxide), wherein the modified poly(ethylene oxide) is modified by grafting a polar vinyl monomer to a poly(ethylene oxide). As such, it is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention.

Additionally, Applicants' claimed invention modifies poly(ethylene oxide) by grafting a **polar** vinyl monomer thereto. However, Brady is directed to vinyl monomers that are not polar. The vinyl monomers listed by Brady (col. 3, lines 28-35) are not polar vinyl monomers, but simply comprise aliphatic hydrocarbons. As such, the monomers used in Brady are not water-soluble, which would be expected and desired as water-soluble adhesives may be a detriment in diapers, sanitary napkins and household wipes, among other things that uses the adhesive taught in Brady (see. col. 1, lines 10-18) as they would fall apart in normal use. However, Applicants use **polar** vinyl monomers as these monomers are water-soluble, thereby helping to create a non-woven material that is water-soluble and, therefore, water-dispersible. As such, it is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention.

Lastly, Brady is directed to graft copolymers having 40-85% of a vinyl monomer grafted to 15-60% polyalkylene oxide polymer. However, Applicants claimed invention uses about 0.1 to about 20% of a polar vinyl monomer grafted to the poly(ethylene oxide). As such, it is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claims 21 and 25 are allowable over the art of record. Furthermore, since Claims 22, 24, 26-28, 30 and 37 recite additional claim features and depend from Claim 21 or Claim 25, these claims are also allowable over the art of record. Accordingly, Applicant respectfully requests withdrawal of this rejection.

Claims 23 and 26 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Brady. This rejection is respectfully traversed.

Applicants' claimed invention may be relied upon as above.

Applicants' discussion of Brady may be relied upon as above.

It is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention for the reasons given previously. Since Brady teaches an adhesive comprising 40 to 85% of a vinyl monomer grafted to a polyalkylene oxide polymer, it is respectfully submitted that Brady fails to teach or suggest a non-woven material comprising 0.1 to about 20% of a **polar** vinyl monomer grafted to a poly(ethylene oxide). In regards to the claimed viscosities, it is respectfully submitted that it would not have been obvious to formulate Brady's binder composition to have a shear rate within Applicants' claimed range. Viscosity is a function of shear rate. A viscosity without a shear rate is not meaningful because viscosity is dependent on shear rate. Since Brady is silent as to shear rate, the viscosities taught therein are meaningless to one of ordinary skill in the art and any teachings of viscosity are not adequately described and enabled. Accordingly, it is respectfully submitted that Brady fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claim 21 is allowable over the art of record. Furthermore, since Claims 23 and 36 recite additional claim features and depend from Claim 21, these claims are also allowable over the art of record. Accordingly, Applicant respectfully requests withdrawal of this rejection.

### III. Conclusion:

For at least the reasons given above, Applicants submit that Claims 21-31 and 36-37 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

The foregoing is submitted as a full and complete Response to the Office Action mailed January 31, 2003, and early and favorable consideration of the claims is requested.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,



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